

PCT

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INTERNATIONAL PRELIMINARY EXAMINATION REPORT
(PCT Article 36 and Rule 70)

REC'D 26 MAR 2004


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Applicant's or agent's file reference P13141PCDK	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/DK 03/00030	International filing date (day/month/year) 17.01.2003	Priority date (day/month/year) 17.01.2002
International Patent Classification (IPC) or both national classification and IPC F28D9/00		
Applicant YORK REFRIGERATION APS et al.		

- This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
- This REPORT consists of a total of 5 sheets, including this cover sheet.
 - ☐ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of sheets.

- This report contains indications relating to the following items:
 - I ☒ Basis of the opinion
 - II ☐ Priority
 - III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
 - IV ☐ Lack of unity of invention
 - V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
 - VI ☐ Certain documents cited
 - VII ☐ Certain defects in the international application
 - VIII ☐ Certain observations on the international application

Date of submission of the demand 08.08.2003	Date of completion of this report 25.03.2004
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**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. **PCT/DK 03/00030**

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, Pages

1-11 as originally filed

Claims, Numbers

1-10 as originally filed

Drawings, Sheets

1/3-3/3 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:
- ☐ the drawings, sheets:

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5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	3-10
	No: Claims	1,2
Inventive step (IS)	Yes: Claims	
	No: Claims	3-10
Industrial applicability (IA)	Yes: Claims	1-10
	No: Claims	

2. Citations and explanations

see separate sheet

Re Item V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Claim 1

1.1 Clarity (Art. 6 PCT)

Claim 1 defines that a submerged evaporator is contained in a casing, defining therewith a relationship between different physical entities. It is not clear whether protection is sought for all the features defined in the claim or only for the submerged evaporator. The intended limitations are therefore not clear from this claim, contrary to the requirements of Article 6 PCT.

Therefore, the application does not meet the requirements of Article 84 EPC, because claim 1 is not clear.

Further examination is performed assuming that the subject-matter of claim 1 is a casing **comprising** (emphasis added) a submerged evaporator.

1.2 Novelty (Art. 33(2) PCT)

Document EP-A-0 758 073, cited in the description, already discloses a casing comprising a submerged evaporator and at least one integrated plate heat exchanger, where the integrated plate heat exchanger has at least one inlet connection and at least one outlet connection for a secondary refrigerant, where the plate heat exchanger is disposed at the bottom of the casing, where a primary refrigerant may flow around the plate heat exchanger and a secondary refrigerant may flow through the plate heat exchanger, and where the uppermost part of the casing is used as a liquid separator and whereby the integrated plate heat exchanger is integrated with the evaporator (the heat exchange section is completely inside the casing and only the reverse chambers extend to the outside of the casing) and made with an outer contour that substantially follows the lower contour of the casing and the liquid level of the primary refrigerant (cf. Figures 1 and 2 and the corresponding description).

Therefore, the present application does not satisfy the criterion set forth in Article 33(2) PCT because the subject-matter of Claim 1 is not new.

2. Claim 2

Above cited document also discloses the features of claim 2, i. e. that the longitudinal sides of the plate heat exchanger are closed for inflow or outflow of the primary refrigerant between the plates of the plate heat exchanger, and that in the bottom of the plate heat exchanger there is provided at least one opening through which the primary refrigerant flows in between the plates of the plate heat exchanger.

Therefore, claim 2 also does not satisfy the criterion set forth in Article 33(2) PCT.

3. Claims 3 to 10

Dependent claims 3 to 10 relate to minor constructional features, like the longitudinal guide plates, the pattern of guide grooves or the suction manifold disposed in the "dry" part, which insofar as not revealed in the prior art come within the scope of the customary practice followed by persons skilled in the art, especially as the advantages thus achieved can be readily contemplated in advance. Consequently, the dependent claims 2 to 10 do not appear to contain any additional features which, in combination with the features of any claim to which they refer, involve an inventive step.

Therefore, dependent claims 3 to 10 do not satisfy the criterion set forth in Article 33(3) PCT.